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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,705	09/09/2003	Robert Lombardi	0263421-0042	2309
24280	7590	07/28/2005	EXAMINER	
CHOATE, HALL & STEWART LLP			BRINSON, PATRICK F	
EXCHANGE PLACE			ART UNIT	
53 STATE STREET			PAPER NUMBER	
BOSTON, MA 02109			3754	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/658,705

Applicant(s)

LOMBARI ET AL.

Examiner

Patrick F. Brinson

Art Unit

3754

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on July 11, 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/11/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 12-14, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 2,583,231 to **Ragland**.

The patent to **Ragland** discloses a pressure assembly comprising a passage fitting (16) through which water flows into and out of the tank and a water chamber, the fitting integrally connected to tube (14) having first and second ends, with a plurality of apertures or slots (15). A cylindrical diaphragm (17) disposed about the tube, wherein the apertures (8) provide fluidic communication between an interior of the tube and the interior of the diaphragm. Collar (26) provides fluidic communication between the passage fitting and the interior of the tube, wherein a first end of the diaphragm is sealingly fitted to a portion of the collar, as recited in claim 1. A valve (19) provides controllable fluidic communication between an exterior of the tank and a space (18) between the pressure assembly and the diaphragm, as recited in claim 2. A portion of the collar has an outer diameter that is

approximately equal to the inner diameter of the diaphragm, as recited in claim 4.

The opposite end of the diaphragm is sealingly engaged to cap (21 and 29), as recited in claim 6, and the cap is sealing engaged to the second end of the tube. Col. 3, lines 55-60 discloses that when compressed fluid is placed in cavity (18) without a corresponding pressure within mandrel (14), the inner surface of the diaphragm contacts the tube during normal operating pressures, as recited in claims 8 and 13. It is later disclosed that the inner surface of the diaphragm may or may not come into physical contact with the outer surface of the tube during normal cycling. **Ragland** does not disclose the apertures or slots being open to the end of the tube. At the time the invention was made, it would have been an obvious design choice to a person of ordinary skill in the art to form the slots to open to the end of the tube of **Ragland** because Applicant has not disclosed that having the notches at the end or opened to the end of the tube provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the slots near the end as suggested by **Ragland** because the slots near the end function equally to allow fluidic connection between the tube and the interior of the diaphragm. Therefore, it would have been an obvious matter of design choice to modify **Ragland** to obtain the invention as specified in claims 1, 9 and 14. At the time the invention was made, it would have been an obvious design choice to a person of ordinary skill in the art to

form the ends as two domes welded to one another because Applicant has not disclosed that these features provide an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a unitary shell as suggested by **Ragland**. Therefore, it would have been an obvious matter of design choice to modify **Ragland** to obtain the invention as specified in claims 3 and 9.

### ***Response to Amendment***

Applicant correctly argues that the claims are not obvious over the **Forster** and **Mercier** references because they now include the limitation that the second end of the tube is closed by a cap. Newly found art to **Ragland** discloses a pulsation device that does not convey fluid, but rather allows fluid to flow into and out of the tank through a single fitting. It is still the examiner's position that the limitation of slots is not a patentable feature, wherein the function of the holes of **Ragland**, like those of **Forster** and **Mercier**, are the same as the slots of the present invention, which is to allow fluid communication between the exterior of the tube and the interior of the diaphragm. There is nothing in the specification that supports an advantage of a slotted end of the tube over a hole near the end of the tube. Applicant argues that having only one slot would ensure that substantially all water would be forced out of the space between the tube and the diaphragm when the diaphragm is disposed

against the tube. It is believed that the **Ragland** device will do the same. Providing the tube with a slot is a mere design variation over the prior art in communicating fluid from the exterior of the tube with the interior of the diaphragm.

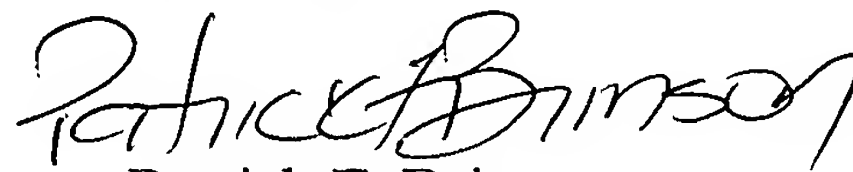
### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to **Zahid** is pertinent in disclosing a high pressure accumulator including slots in the tube adjacent the end of the tube. **Dirks** is pertinent in disclosing an end cap on one end of the, thus allowing fluid to flow into and out of the same fitting.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick F. Brinson  
Primary Examiner  
Art Unit 3754

P. F. Brinson  
July 21, 2005